

CHAPTER V

CONCLUSION AND SUGGESTIONS

5.1 Conclusion

This chapter presents the conclusions derived from the findings and discussion of the study, followed by several practical recommendations for English teachers, educational institutions, and future researchers. The conclusions are structured according to the two research questions and hypotheses formulated in Chapter I, ensuring consistency with the discussion and presentation of results in Chapter IV.

5.1.1 The Effect of Prompt Engineering on Critical Thinking Skills

The first conclusion of this study is that prompt engineering produced a statistically significant positive effect on the critical thinking (CT) skills of eleventh-grade students at SMAN 1 Dawarblandong. The results of the independent-samples t-test indicated a significant difference in CT gain scores between the experimental group and the control group, $t(62), p < .001$, with a large effect size (Cohen's $d = 1.19$). Consequently, the null hypothesis (H_{10}) was rejected, while the alternative hypothesis (H_{11}) was accepted.

These findings indicate that the TCI-RATEL prompt engineering framework effectively encouraged students to engage in higher-order thinking processes during narrative writing activities. Through the process of analysing task requirements, constructing logical prompts, and critically evaluating AI-generated responses, students demonstrated improvement in the three critical thinking dimensions assessed in this study, namely analysing arguments, developing reasoning, and evaluating perspectives. In addition, the qualitative improvements identified in students' post-test narratives, particularly within the complication sections, further reflected the development of their critical thinking abilities. Overall, the findings suggest that prompt engineering instruction can serve as an effective and contextually appropriate instructional strategy for promoting critical thinking in EFL classrooms at the secondary school level.

5.1.2 The Effect of Prompt Engineering on Writing Quality

The second conclusion of this study is that prompt engineering instruction produced a statistically significant and educationally meaningful positive effect on

the writing quality (WQ) of eleventh-grade students at SMAN 1 Dawarblandong. The results of the Independent Samples t-test revealed a highly significant difference in WQ gain scores between the experimental and control groups, $t(62) = 5.406$, $p < .001$, accompanied by a very large effect size (Cohen's $d = 1.35$). Therefore, the null hypothesis (H_{20}) was rejected, whereas the alternative hypothesis (H_{21}) was accepted.

The findings indicate that the structured use of AI tools through the TCI-RATEL framework helped students produce narrative texts with substantially better quality across the five assessed writing dimensions: content, organization, vocabulary, language use, and mechanics. Among all narrative components, the complication sections in students' post-test writing consistently achieved the highest rubric scores, suggesting that the framework effectively supported achieved the highest rubric scores, suggesting that the framework effectively supported students in developing more detailed conflicts, clearer text structures, and more accurate language use. Overall, these results demonstrate that explicit prompt engineering instruction can transform AI from a tool used passively into an effective instructional scaffold that supports significant improvement in students' writing quality.

5.2 Suggestion

Based on the findings, discussion, and conclusions of this study, several recommendations are proposed. These suggestions are formulated by considering the limitations of the current research as well as the pedagogical implications discussed in Chapter IV. The recommendations are specifically addressed to three primary parties: English teachers, educational institutions, and future researchers.

5.2.1 For English Language Teachers

English teachers in Indonesian secondary schools are recommended to incorporate explicit prompt engineering instruction into EFL writing lessons as an effective strategy for improving both students' critical thinking abilities and writing quality simultaneously. The findings of this study indicate that the TCI-RATEL framework functioned effectively as a classroom scaffolding model within a relatively short three-week instructional period and could be integrated into existing writing activities without requiring substantial modifications to the curriculum structure. Instead of limiting students' access to AI tools, teachers are

encouraged to create structured learning activities that promote critical and purposeful interaction with AI-generated content, such as revising prompts, comparing multiple AI responses, and integrating AI-generated ideas with students' own reasoning and perspectives.

5.2.2 For Educational Institutions

Educational institutions, especially secondary schools implementing the Merdeka Curriculum, are advised to consider incorporating AI literacy and prompt engineering competencies more formally into the English language curriculum. Since the curriculum emphasizes the development of 4C skills, particularly critical thinking, prompt engineering offers a relevant and technologically appropriate pedagogical approach that supports these objectives. In addition, schools are encouraged to facilitate professional development programs and training opportunities to help teachers apply prompt engineering instruction effectively and consistently in various classroom settings.

5.2.3 For Future Researchers

Future researchers are encouraged to address several limitations identified in the current study. First, future studies are recommended to employ a true experimental design involving random assignment of participants to strengthen the causal validity of findings related to the effects of prompt engineering on critical thinking (CT) and writing quality (WQ). Since the present research used a quasi-experimental design, the ability to draw stronger causal conclusions remains limited. Second, replication studies with larger and more diverse participant populations from different schools, regions, and socioeconomic backgrounds across Indonesia are needed to improve the generalisability of the findings beyond the single-school context examined in this study.

Third, further longitudinal research is recommended to investigate whether the improvements in CT and WQ observed after the three-week intervention can be sustained over longer periods of time. The relatively short duration of the current study may not have been sufficient for students to fully internalise and consistently apply prompt engineering strategies. Finally, future studies are encouraged to combine written performance assessments with additional qualitative methods, such as think-aloud protocols, reflective journals, or interviews, to obtain a deeper understanding of the cognitive processes through

which prompt engineering instruction contributes to the development of students' critical thinking and writing quality.